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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

HEMOGLOBINEMIA AND ITS CONSEQUENCES.

BY SAMUEL BRANDEIS, M. D.

We are in possession of a great many facts and observations as to the changes which are going on in the liquid portion of the blood in a great number of diseases. We possess less knowledge about the material changes occurring in the more fixed and solid constituents of the blood—the red elements. This depends, to a great extent, upon the fact that our information regarding the physiological disintegration of the blood corpuscles is very imperfect. About one point there seems to be very little doubt, that the coloring matter of bile is derived from the coloring matter of the blood, though we have to admit that as to *how* this process is accomplished we can not give a very satisfactory answer.

It would be of highly scientific interest and of far-reaching significance, as well in a diagnostic as in a therapeutic point of view, if it could be successfully demonstrated how, in some acute diseases accompanied with rapid disintegration of tissue, as in fever and sepsis, and in some chronic wasting diseases,

this process of blood-corpuscle consumption is carried on, and whether this enhanced physiological destructive process is uniform in such diseases. The almost constant enlargement of the spleen seems to point strongly toward such an assumption.

From this point of view it would not be without interest to follow up a series of pathological appearances which rely upon an acute and accumulative dissolution of an essential part of the mass of red blood corpuscles. Perhaps this may afford us a remunerative insight into the physiological part of the question, and open the road for an advance toward a better understanding of the retrograde metamorphosis of tissues.

There are quite a number of influences which may cause a dissolution and breaking up of the red blood globules. The first instance of the kind came to light some time ago by the experiences offered by transfusion with blood taken from inferior animals, and afterward by cases of combustion. Subsequently a number of drugs and poisons were discovered which were found to possess *kythomoletic* properties, such as pyrogallic acid, hydrogen of arsenic, and chloride of potassium. The question *how they accomplish this* may be set aside for the present. A superficial view of the very different physical and chemical nature of these agents must decide that the cause in each individual case can be a different one. Once it is a *thermic* factor, as in burns and freezing; another time it is a chemical one, as in some medicinal and toxic bodies; to which can be added certain nutriments, like some of the fungi. All these influences have a common final result; namely, at the moment in which the coloring matter becomes separated from the red corpuscle and associates itself with the plasma it becomes a powerful poison; so that it can be justly asserted that such a loss of essential blood substance gives rise to more serious occurrences than an equivalent abstraction of blood by phlebotomy. In the latter case we deal only with a negative condition—a loss of blood which is easily restored; but in the former, if, through the influence of the agencies mentioned, coloring matter is separated from the stroma of corpuscles, and is left to float in the plasma,

it becomes a foreign body, of which the system has to rid itself in the easiest and shortest way possible.

This closely connected series of appearances, which are the result of the presence of free coloring matter in the blood, will, as a natural consequence, be somewhat modified if produced by the substances just named as they exercise their peculiar influence upon the various organs and tissues. If one desires to investigate these appearances clear and unaltered, the best way is to introduce into the circulation blood which has been brought to a separation by freezing, or else a simple solution of hemoglobin. In such a case no secondary effects, such as those produced by transfusion, or pyrogallic acid, or fungi, or chlorate of potassium, will follow, nor will such general disturbances as are produced by combustion (burns) or freezing obscure the symptoms.

This solution of continuity between the body of the red cell and the hemoglobin, caused by any of these agents, will be consummated either in such a way that the pigmentary elements are broken into a number of fragments, as happens after burns, when the fragments will float about for some time in the blood current and be eliminated, or the pigment is finally separated from its base and becomes mixed with the plasma. The process is entirely different if caused by chemical agents. Then the red corpuscles die in toto and float about as a cadaver in the fluids, which have at the same time received the pigment.

In either case hemoglobinemia is established within a few hours. This abnormal condition of the blood must now be accepted as the starting point, and this view must be adhered to if one desires to comprehend the symptoms. They are all secondary in character, but each by itself is not an absolute, necessary, and regular concomitant of the disease.

Among the manifold phenomena which ensue upon the dissolution of red blood corpuscles, the appearance of coloring matter in the urine is one of the most important and conspicuous. Two hundred years ago it already attracted the attention and caused the astonishment of those who practiced transfusion

with blood from the lower animals, but it is only recently that it has been properly understood. We find a shining reddish, even black, and, later, a dirty reddish or brownish urine, in which no coloring matter can be detected, but which contains an abundant amount of hemoglobin. It would be rather erroneous to accept this condition of the urine as an essential and constant concomitant of hemoglobinemia. There are undoubtedly a great many cases of blood dissolution which are not characterized by this condition of the urine mentioned. We have therefore to discriminate between *hemoglobinemia* with and without pigmented urine.

Enough stress can not be put upon this fact; and in classifying and naming the disease we are forced to recognize the breaking up of the blood as the central fact, instead of regarding as such any single symptom which is not constantly present.

Now the question presents itself, What are the means the system brings into action in order to rid itself of a substance which has suddenly become a serious poison? There are two different ways in which this is accomplished. The fragments and slags which are the result of a breaking down of the coloring element are received by one of the large abdominal organs, and there submitted to a retrogressive change. For the elimination of matters which are the result of dissolution two other important abdominal glands become active. The fragments of the first kind are received by the spleen, for which our forefathers in medicine already claimed an important rôle in diseases connected with dissolution of blood. Through the reception of pigmental fragments which are carried into it by the blood stream, this organ rapidly becomes enlarged, so that within a short time it presents a formidable tumor; and there is hardly any doubt that most cases of enlarged spleen are the result of an abnormal deposit of pigmental fragments in its pulp (spadogen tumor).

One may very easily satisfy himself that even such a considerable enlargement has no lasting bad effect upon this organ, but seems to fulfill its task with ease and promptitude; so that it not

only rids the circulating fluid in a short time of these foreign elements, but will even reconstruct the same within a few weeks.

The condition when the pigment, instead of remaining in fragments, has become part and parcel of the plasma, is comparatively more serious and even dangerous. This will not terminate toward the kidney, though hemoglobinuria was for a long time put forward as the most essential symptom of this condition, but it is, above all, assigned to the *liver*, of which we know for a long time that it attracts pigmentous matter in order to change it and discharge it, together with the bile, into the intestinal canal. In fact, the liver does prodigious work in hemoglobinemia. It secretes bile, which is unusually rich in coloring matter. The deeply colored feces demonstrate the unusual increase of secretion. It is most remarkable that this eliminative power of the liver, in its relation to hemoglobin, is strictly limited. Only one sixtieth of the total amount of hemoglobin is the liver able to hold and to transform into an essential part of its secretion. The moment this limit is exceeded the hypercholia becomes associated with hemoglobinuria. Pigment will now suddenly appear in the urine, but only so much as is in excess of the sixtieth part required by the liver. In this manner we see the pigrate from the blood through the kidney, which, according to the amount of this excess, will be freed from it either within a few hours or a certain number of days. Very small quantities of hemoglobin, in this way forced through the renal canaliculi, will suffice to put the kidneys in a high state of irritation. So soon as the demand upon the secretory power of the kidneys is increased or prolonged, peculiar thick, muddy fluid will be discovered as a brown or greenish sediment in the reddish fluid. If the animal be now killed, the fluid just described will be found to ooze from the tubuli and its epithelium into the canaliculi. Here it solidifies and forms solid cylinders. This gives rise to the great danger associated with hemoglobinemia, as a great portion of the urinary tubules become rapidly obstructed with a semi-solid material—the only instance of the same sort known in human pathology.

While therefore the fragments of the destroyed blood, yet retaining their shape, are received by the spleen, and there gradually transformed, those which have lost their shape flow toward the liver, and, under certain conditions, are directed toward the kidneys, from which they are intended to be eliminated, the former takes up the first installment, the latter the second term, but only so much as is in excess of the sixtieth part of the whole blood, and which the liver was not able to dispose of, is carried to the kidneys. Unfortunately this is associated with great danger, as it creates an inflammation of such intensity that all the excretory ducts become obstructed. Anemia is established, and death within the first day ensues.

We are therefore justified in recognizing three principal series of phenomena characterizing so many grades of hemoglobinemia.

In cases of the first grade the essential feature is the change of the blood. This is not manifested by any morbid appearances. There is no perceptible pigmentation of urine. The liver and spleen are called into somewhat increased action without any conspicuous disturbance. There is a slight but nevertheless serious breaking down of blood cells going on.

In the second grade all the three organs—the spleen, liver, and kidneys—actively participate in the process of transforming and eliminating the debris. Here the abnormal condition of blood and urine containing hemoglobin may be observed for a day or two, but finally recovery is established. Increased action of the heart and the administration of diuretics may flush the crowded cylinders and open the way for free secretion. Cases of this nature depend upon extensive destruction of red elements, but grave and threatening organic changes have not yet taken place.

The cases of the third grade are those where the urinary canaliculi have become so completely obstructed that no pressure upon the malphigian bodies is capable of removing the obstruction. Complete anemia then results, and, under the double influence from the retention of blood pigment and of

excrementitious urinary matters, death soon follows. It depends upon the size of the dose administered to the animal whether this event takes place in one, two, or three days.

It is evident that not earlier than in the second and third category are the kidneys called upon to assist the spleen and liver. The two latter have to stand the first invasion. The other may be considered as reserve forces which are called into action when greatly augmented blood destruction requires their aid in the process of purifying the circulation.

One other important symptom yet remains for consideration, and this is the *icterus.* This symptom is not only observed in cases of artificial hemoglobinuria, produced by poisoning of animals, but also in those which paroxysmally occur in man. Undoubtedly this is an icterus of hematogenous origin, growing out of progressive metamorphosis of hemoglobin into bilin within the circulation.

Whenever the kythomoletic agent has caused the detachment of so much pigment that the three organs (the liver, spleen, and kidneys) become insufficient to purify the circulation of the same, the hemoglobin is changed into methomoglobin, and then into biliary pigment.

Apparently the liver and kidneys are still open to these elements, so that their passage into the urine is possible, and the latter presents a brownish or olive-greenish tint; but the kidneys are frequently obstructed by extensive impediments to a rapid flow, so that time is given for the pigment, which, in the meantime, has entered the lymphatics, to cause the staining of the integument and conjunctivæ.

From this it follows conclusively that the complication of this disease with icterus is a very serious and threatening occurrence. It is nothing less than the expression of inability of the three depurative organs to clear the system of the accumulated excrementitious materials.

This circumstance is in perfect harmony with the fact that in the first stage of the disease icterus is never seen; that in the second stage it is not regularly present, and if so, only on the

second or third day, and is slight and of relatively short duration; while in the third stage it is certain to make its appearance on the first day, and increases to a high degree, and persists till death.

In recapitulating what has been said, we can condense the phenomena of the three grades of hemoglobinemia as follows: Common to both is the spadoic splenic tumefaction and the hypercholia. In limited breaking up of the blood, hemoglobinuria and icterus are both absent. If the dissolution be more extensive, the pigment will appear in the urine, occasionally accompanied by slight and temporary icterus. But whenever the destruction of the red element becomes profound, we suddenly find intense and lasting hemoglobinuria, combined with intense exudative nephritis, and at the same time intense and persistent icterus.

The explanation just presented gives us an insight into the origin and connection of the various phenomena peculiar to hemoglobinemia, and it is hoped will be fertile in affording a clear understanding of the ways and means which nature adopts for the removal of the slag.* With that only can we obtain a sufficiently reliable basis and definite plan for assisting nature in her curative efforts, and gain firm foundation for our therapeutic measures.

LOUISVILLE, KY.

* From Berlin. Med. Wochenschrift, June, 1883.

OBSERVATIONS ON OPHTHALMOLOGY,

AT THE ROYAL LONDON OPHTHALMIC HOSPITAL, IN 1881.*

BY J. HALE, M. D.

Catarrhal ophthalmia was treated with instillations of a two-grain solution of nitrate of silver, sulphate of zinc, or alum, applied three or four times a day, and frequent cleansing with water. Gonorrheal ophthalmia with iced compress or iced alum lotion constantly applied to the lids, and a two-grain solution of chloride of zinc dropped into the eye several times a day, the frequency varying according to the discharge; the lids being everted and painted once a day with a twenty-grain solution of nitrate of silver; the eyes kept thoroughly cleansed with cold alum lotion; and when the discharge was very free, and collected under the lids, syringing with cold water two or three times a day was employed.

When corneal inflammation, with or without ulceration, occurred, a cold poppy lotion was used instead of the iced compress, and a two-grain solution of eserine dropped into the eye six times a day. The chloride of zinc was generally discontinued, but the painting of the lids with the silver solution continued, carefully avoiding injury of the corneal tissue by the lotion or the act of eversion. As the discharge diminished the paintings were made less frequent, as every second, third, or fourth day. The good effects of the eserine on the corneal complications were very decided.

Purulent ophthalmia was treated in about the same way, Buller's shield being used to protect the healthy eye when one only was affected.

Diphtheritic conjunctivitis was said to be very rare in London. I saw only one case, which was treated with a four-grain solution of quinine, constantly applied on lint, and a carbolized

* Read by title before the Kentucky State Medical Society, April, 1883.

wash used to cleanse the eyes. Both eyes were destroyed by corneal suppuration.

The treatment of corneal ulceration varied according to the character of the ulcer. When it was deep, with an irregular, undermined periphery, and surrounding infiltration with or without hypopyon, eserine was used five or six times a day, the eye being at the same time bathed for several minutes every half hour with hot poppy fomentations, and quinine given internally three times a day. If there was much pain from the beginning, bathing with hot belladonna fomentations and the instillation of atropia was substituted; but in such cases the progress toward recovery was less rapid and the final result less satisfactory.

In abscess of the cornea, or if there was dense purulent infiltration around the ulcer, a section through the affected tissue was made with a linear knife, and eserine freely used. In vascular ulcer with persistent photophobia a seton in the temple was used. In the indolent, clear ulcer, stimulation with a strong solution of nitrate of silver was used. Phlyctenular ulcers were treated by insufflation of calomel or the application of the yellow oxide-of-mercury ointment. In all cases a shade was used, and the patient kept in a darkened room.

Cataract. In all cases of senile cataract the ordinary linear extraction was made. After the extraction a small strip of adhesive plaster was laid across the closed lids of both eyes, so as to prevent the patient opening his eyes during the period of excitement after the operation. A small piece of lint and a circular pad of cotton wool were laid over each eye, and secured by a cataract bandage. At the evening visit this dressing was removed, the patient being warned not to open his eyes, and each strip of plaster raised from below, and the lower lid gently drawn down, so as to allow the escape of any pent-up tears. The strips of plaster were then replaced, and the dressing applied as before. The next morning the eyes were bathed with lukewarm water, and the strips of plaster removed entirely, and lids dried well with absorbent cotton wool. The lower lids were then drawn down as before, to let the tears escape, and a fresh dressing

applied. In the evening the dressings were again removed, and fresh ones applied. This treatment was continued for the first week, when, if the case was doing well, it was put in the hands of an experienced nurse, who attended to the dressings in the future. On the tenth day the cataract bandage was removed, and the sound eye left uncovered. Three or four days later both eyes were uncovered, a shade only being worn.

Atropia was used in all cases where lens matter had been left in the eye, or when, from difficulty in extracting the lens, unusual interference with the iris had been necessitated.

Iritis rarely occurred before the fourth day after the operation, and was treated by instillations of atropia and leeching, followed by blistering the temple or mastoid process. Suppuration of the edges of the wound generally occurred on the morning or evening of the second day after extraction, which was manifest by edema of lids and slight purulent discharge. Frequent bathing with hot poppy fomentation was then used, and eserine dropped into the eye three times a day; the bowels freely moved with calomel and colocynth, followed by quinine in full doses; and when there was much pain, leeches were applied. Where there had been much difficulty in extraction of the lens, requiring much instrumental interference, an iced compress was applied immediately after the operation, and continued for three or four days.

After secondary operation, as needling opaque membranes, or iridotomy for closed pupil, an iced compress was applied for the first two or three days, and atropia dropped into the eye six or eight times a day.

Soft cataracts were treated by discission, and immediately after the needling a drop of atropia solution was put into the eye and an iced compress applied, and continued for two or three days, and then removed if there was no pain or ciliary injection; but in such an event the compress was continued, and a four-grain solution of atropia dropped into the eye six or eight times a day and twice during the night; and if there was much pain and tension of the globe, leeches were applied to cor-

responding temple. If the anterior chamber filled with lens matter, and the tension was very great, the lens was removed with the suction syringe or curette. After this operation the iced compress is re-applied, and atropia used freely; and when there was much pain, leeches to the temples. On removing the iced compress, a dry pad was applied, and kept on until all trouble ceased.

Strabismus was treated by an operation termed "The Moorfield's Operation." In convergent strabismus a small fold of conjunctiva and subconjunctival tissue was seized with a toothed forceps just over the inferior border of the internal rectus, near its insertion, and divided with blunt-pointed scissors, just below the forceps, through the tissues until the sclera was exposed. The strabotomy hook was then passed through the opening and under the tendon, and forward until its point could be seen above the upper border of the tendon, which was then divided with the scissors by passing them along the hook as a guide, one blade below the tendon, the other between it and the conjunctiva. After the tendon is completely divided at its insertion to the sclera, the hook is swept freely upward and downward between the muscle and sclera, to ascertain whether the tendon is completely disconnected with the sclera or not; and if any connection still exists, it is severed, and the hook passed again, and so on until the hook passes freely into the edge of the cornea. When the squint exceeded three lines, both eyes were operated on, so as to divide the effect as near as possible between the two.

In divergent squint the external rectus was divided in the same way.

In entropion of the upper lid "Burow's operation" was made in every case I saw treated. It is comparatively a new operation, and is not well described, so far as I know, in any work on diseases of the eye. Nettleship mentions it in the first edition, but gives a very meager description of the operation. So I will briefly describe the operation, with some modifications which I think render it easier of execution and more efficient.

The eyelid is drawn down, and the end of a horn spatula is placed on the lid, which is then everted. The operator holding the spatula and lid in place with his left hand, an incision is then made entirely through the tarsal cartilage, about a line and a half from its border, with a sharp-pointed knife. Then the semi-blunt point of a pair of scissors is inserted beneath the cartilage, which is completely severed from the inner to the outer canthus. The lid is then replaced. When the skin is very lax, and the tarsal cartilage curves in much, a piece of skin is removed from the lid by pinching it up with forceps and removing it with scissors. The edges of the wound are then brought together by fine sutures.

The modifications I have adopted are to pass a needle armed with a strong silk thread through the border of the lid, midway between the outer and inner canthus, which I use in everting and holding the lid on the spatula. I then cut through the tarsal cartilage near the middle, and about one line from the anterior edge, with a small scalpel, and introduce the point of one blade of the scissors through the incision and beneath the cartilage, and divide it to the end; then, reversing the scissors, divide it to the other end, cutting a narrow strip off the edge of the cartilage its entire length; then replace the lid, and fasten both ends of the thread with adhesive plaster to the forehead just over the brow, making sufficient tension on the threads to slightly elevate the edge of the lid; allow them to remain twenty-four hours, and then remove them.

The operation, I think, possesses advantages over any other that has ever been made for entropion of the upper lid. It is easy of execution, attended by but little pain and no risk, leaves no deformity, and is almost universally successful.

In conclusion, I deem it but justice to myself to state that the limited space to which I was confined necessitated the brevity, and limited my paper to only a few of the most common and important affections of the eye.

OWENSBORO, KY.

EPITHELIAL CANCER OF THE GLOTTIS AND TRACHEA—TRACHEOTOMY—DEATH.

BY W. M. FUQUA, M. D.

November 15, 1882, Mrs. C., a widow with one child, came to my office for consultation relative to some obstruction in her breathing. She had always been well and strong until six or eight months previously, when she began to suffer from cough and expectoration of muco-pus, and occasionally a little blood. Her breathing gradually became shorter, more difficult, and distressing, so that she was unable to attend to her household duties. Prior to this dyspnea she had been an excellent vocalist; is thirty-eight years of age, and weighs one hundred and forty pounds. There is no evidence of organic disease of the heart or aneurism of the arch of aorta or syphilitic history. She sleeps but little, and this under morphia, and when asleep the stridulous breathing is very distressing. Auscultation revealed sibilant and sonorous râles in the upper portion of the left lung, and the tracheal sound was of the same character as we hear in membranous croup. Externally there was an enlargement quite perceptible just in front of the body of the thyroid cartilage. Examination with the laryngoscope revealed an ulcer at the base of the epiglottis, with thickening, induration, and congestion within and around the glottis. The vocal cords could be seen very imperfectly. She takes her food cautiously, and is often greatly distressed by the escape of fluids into the trachea. The danger of her situation was explained to her, and no hope of relief was held out except by tracheotomy, and this only as a "dernier ressort." She was directed to spray the ulcerated surface with a solution of bromide of potash, the external enlargement to be painted with iodine, and to take the arsenite of potash in ten-drop doses three times a day. From this period up to March 1st I saw this lady several times without any change for the better. She had lost flesh, and it became evident that

there was some malignant disease, presumably epithelial cancer of the larynx and trachea. After this period I saw this patient no more until the second of June, when Dr. Fairleigh and myself were called in consultation with Dr. J. C. Whitlock, when we unanimously agreed that tracheotomy was imperative, only for present comfort and prolongation of life.

On the 6th inst. the operation was done, Drs. Clarke, Dulin, and Williams being present, together with Drs. Fairleigh and Whitlock. After laying bare the crico-thyroid membrane and the three upper rings of the trachea, this space was divided, which was followed by blood from the thickened mucous membrane pouring out within the trachea, which momentarily threatened her life. After the bleeding ceased, the tracheal tube was introduced, and at once her respiration was improved, but not to that extent we expected, and it now became evident that some obstruction existed farther down the trachea or within the bronchi. This obstruction was doubtless due to infiltration of carcinomatous matter and narrowing of the large bronchi.

On the 9th inst. I visited the patient again with Dr. Whitlock, and introduced a larger tracheal tube. Her breathing was much better, and she was more hopeful. On taking fluids, I found that at least half was expelled through the tracheal tube, which was due to destruction of tissue. Her condition continued about the same for several days, when finally she was awakened from sleep by cough at night, which was followed by copious hemorrhage, evidently from her lungs, which, in a short time, induced death by strangulation.

Remarks. This case is only remarkable because of its rarity. Dr. Delafield, of New York city, before the New York Medical and Surgical Society, April 22, 1882, reports a somewhat similar case, and states that, so far as he was informed, there were only three or four cases on record.

HOPKINSVILLE, KY.

Reviews.

A History of Tuberculosis from the Time of Silvius. Being in part a Translation, with Notes and Additions, from the German of Dr. Arnold Spina. Containing also an Account of the Researches and Discoveries of Dr. Robert Koch and other Recent Investigators. By ERIC E. SATTLER, M. D. Cincinnati: Robert Clarke & Co. 1883. 1 vol. 8vo. Pp. 190.

This timely little volume will be welcomed by all who take an interest in the vital problem with which it deals. It will be found especially useful to those who have not been able to keep up with the recent literature of tuberculosis, and must prove of interest to all who desire to be informed on this subject. The volume gives a history of the study of tuberculosis from the time of Silvius, whose work, published in 1680, was the first to give an accurate description of tubercles of the lung. The gradual development of the knowledge of tuberculosis forms a most instructive and interesting part of the history of medicine in modern times. It is here traced with fidelity and skill.

The first five chapters are a free translation, with a few notes and additions of the first part of the work of Dr. Arnold Spina, entitled "*Studien üben Tuberculose*," which recently appeared in Germany. Dr. Spina has since been promoted to a professorship, and is known as the most conspicuous as well as the ablest opponent of Koch's theories. In these five chapters the author takes up successively the Pathological Anatomy and Histology of Tubercle, Inoculation Experiments, Inhalation Experiments, Feeding Experiments, and Experiments with Tubercle Virus. The learned German has brought his history down to the period immediately before Dr. Koch's discovery, and Dr. Sattler here takes up the subject, and in the sixth and seventh chapters gives an account of Koch's experiments and of the investiga-

tions which have since been carried on by others. Among the latter, undue notice is accorded to Schmidt's pseudo-discovery, which has already received an inevitable quietus. This person undertook to prove that the tubercle bacilli of Koch are not bacilli at all, but simply minute crystals of fatty acids. Spina's criticisms of Koch's experiments and theories are given, and are followed by Koch's reply to Spina.

The volume is attractive in every respect, and will be read with pleasure. The subject of tuberculosis is destined to receive great attention in the near future, as it has in the past. A final result can not be said to have been reached. As Dr. Sattler remarks, "Whether Koch has been too sanguine in the one direction, or Spina has gone too far in the other, it is not for us to say. . . . This much may, however, be said: We are yet on the threshold of a great discovery, and it will require constant inquiry, patient investigation, and deep research before the true relation of bacilli to tubercles, and the part they play in their pathology and causation, are fully determined."

A Manual of Ausculation and Percussion, embracing the Physical Diagnosis of Disease of the Lungs and Heart, and of Thoracic Aneurism. By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc. Third edition, revised. Philadelphia: Henry C. Lea's Son & Co. 1883. 1 volume. Pp. 240.

The two former editions of this work have made the profession thoroughly acquainted with its merits, which are numerous and great, and its defects, which are few and small. In the present edition the former have become augmented and the latter have been almost entirely eliminated. The style is clear and devoid of all redundancy and indirectness. The work has been revised and condensed so much that the author at times reaches a degree of conciseness which may be permissible in a mere

hand-book, but would mar the usefulness and worth of a treatise of larger scope. It is the safest guide in physical diagnosis of the diseases of the thoracic organs; unburdened by the old, familiar, hackneyed illustrations which swell the bulk and cost of many other manuals of physical diagnosis; thoroughly practical; perfectly accurate. Professor Flint has written many good books, but none better, or better fitted for its intended use, than this.

The Microscope and its Revelations. By Wm. B. Carpenter, C.B., M.D., LL.D., F.R.S., F.G.S., F.L.S., etc. Sixth edition. Illustrated by twenty-six plates and five hundred engravings. New York: Wm. Wood & Co. 1883. 2 volumes, 8vo. Nearly 750 pages.

When a work has passed through five editions, its rank and position as a fair product and its fitness for the purpose intended by its author may be said to have become sufficiently established. The book is well known, has had a wide circulation, and is generally appreciated. How its great author has executed the difficult task he has set before him, there is now no need to tell. It will, however, be of service to give an account of the contents, so that medical men may be able to form an idea of the character and scope of the work. The first volume contains three hundred and eighty-eight pages, divided into nine chapters. The first chapter, on the Optical Principles of the Microscope, occupies the space of thirty-nine pages. The second deals with the construction of the instrument and the different varieties in use. This occupies considerable space, and is thoroughly worked up in forty-six pages. In the third chapter are considered the accessory apparatus, and this takes up forty-four pages. The fourth chapter deals with the management of the microscope, and the fifth with the preparation, mounting, and collection of objects. The end of the last chapter brings the work up to the two hundred and twenty-second page. The four remaining

chapters are devoted to the Microscopic Forms of Vegetable Life, Simple Algæ, Protophytic and Other Fungi, Lichens, Microscopic Structure of Higher Cryptogamic, and Microscopic Structure of Phanerogamic Plants.

The second volume contains three hundred and fifty-four pages, divided into thirteen chapters, and an appendix and index. Here the author takes up the microscopic forms of animal life. Excepting those parts which relate to the optical principles of the microscope, its construction and management, the preparation and mounting of objects, etc., there is but little in the work which can be said to be of interest to the medical man as such, but there is a vast amount of material exceedingly interesting from a general scientific point of view. The illustrations are coarse, yet not more so than must be expected in a cheap and popular edition intended to be within the reach of every one.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the fiscal year 1882.

This is an attractive volume of 304 pages, very creditable to the service, and furnishing additional evidence, were any needed, of the ability and good judgment of Surgeon-General Hamilton. On pages 40 and 41 an interesting exhibit is made, showing the difference between the marine hospital management prior to 1871 and at the present time. It is needless to say that there has been marked improvement in the manner of carrying on these hospitals. Such a state of things as reported in 1849–50 by Edward Loving, and in 1869 by J. S. Billings, would be simply impossible under the intelligent and watchful administration of Surgeon-General Hamilton. Nearly one half of the book is devoted to reports of selected cases from hospital practice. These are well selected and ably written, and some of them are accompanied by very good and attractive illustrations. Dr.

Sawtelle contributes seventeen cases of rheumatic effusions in the joints treated by aspiration. A case of aneurismal varix, involving the external iliac and the femoral vessels, with general observations on the disease, is reported by Dr. C. C. Banks. Dr. H. R. Carter furnishes a report of an interesting case of stab wound followed by artificial anus. Operation; recovery.

Surgeon W. H. Long contributes a very well-written report of a case of mortification, involving a portion of the nates and nearly the whole scrotum. Recovery.

Many other reports of more or less importance follow. The reports of fatal cases, with autopsies, form a most interesting part of this volume. They are clear, concise, and satisfactory, and embrace a large number of diseases, both medical and surgical.

A paper on the hygiene of the steamboats on the Ohio River, by Surgeon Walter Wyman, closes the volume. It is thoughtful and well written, and merits attention.

Guy's Hospital Reports. Edited by H. G. Howse, M.S., and Frederick Taylor, M.D. Vol. xli, being vol. xxvi of the third series. London: J. & A. Churchill. 1883. 1 volume, 8vo. Pp. 515.

This volume contains twenty-one contributions from different members of the medical and surgical staff of this famous hospital. Almost all the papers are of value and interest. One, on abnormalities observed in the dissecting-room of Guy's Hospital during the sessions of 1880–81 and 1881–82, not only presents many interesting anatomical deviations from the norm, but also reminds one that the duty of observing, recording, and publishing such anomalies devolves upon all engaged in practical anatomical work. How much valuable information of this kind is annually thrown away in the dissecting-rooms of this country!

The article by W. Arbuthnot Lane, B. S., on cases of empyema in children treated by removal of a portion of a rib, is made

up of the records of five cases thus treated, and is a practical and really excellent contribution.

Mr. Thomas Bryant has contributed a rather voluminous article on the surgical affections of the tongue. It is amply and beautifully illustrated.

The paper on idiopathic anemia contains a full table of selected published cases. It is a very useful contribution to the elucidation of a subject which needs much additional light.

Cases of Multiple Small Abscesses of the Liver is the title of a paper by Dr. R. E. Carrington. It is one of the best in the volume.

Among others must also be mentioned articles on hemi-anesthesia, by Samuel Wilks; on acute gonorrheal rheumatism, by J. H. C. Davies Colley; the minute anatomy and origin of the enchondromata of the salivary glands, and a paper on two cases of pulsatile tumor at the root of the neck, by C. H. Golding Bird and F. A. Mahomed, M. D.

This report, like its predecessors, is entitled to a prominent place among the many excellent publications emanating from the great London hospitals.

Clinic of the Month.

THE QUESTION OF TREPHINING IN INJURIES OF THE HEAD.—H. B. Sands, M. D., the very able Professor of the Practice of Surgery in the College of Physicians and Surgeons of New York, discussed this question with his usual practical discernment in a paper recently read before the New York Surgical Society. He said: It is hardly necessary to remark that a fracture of the skull derives its chief importance from the concomitant or subsequent injury which is sustained by the intracranial contents; and just as no prudent surgeon would dream of converting a simple fracture of the leg into a compound one for the sake of obtaining an accurate adjustment of the fragments, so the plea for preventive trephining in cases of simple depressed or comminuted fracture of the cranium, without head symptoms, is based upon the supposition that, by operating, the danger of subsequent cerebral mischief will be averted. I can not admit the force of this argument, which seems to me to undervalue, on the one hand, the resources of nature, and on the other hand the risks inseparable from surgical interference. Every surgeon present has doubtless met with examples of simple depressed fracture in which no alarming head symptoms were present, and in which permanent recovery took place without any active treatment. Surgical literature abounds in such cases. Textor cites twelve instances of depressed fracture verified by post-mortem examination, in seven of which the depression was complete, involving both tables, and in all of which recovery had taken place without any impairment of the cerebral functions. Similar observations have been recorded by Erichsen, Nunn, Bruns, and many other trustworthy writers.

In cases of simple comminuted fracture, without marked depression, but with considerable displacement of the frag-

ments, early trephining is sometimes advocated, on the ground that unless the loose pieces of bone are removed by operation they will probably become necrosed, and thereby set up fatal intercranial inflammation. But neither of these statements is confirmed by experience. We can rarely feel certain that the comminuted portions of bone, even though freely movable, are completely detached from their vital connections; for they may still be adherent to the pericranium. But, admitting their isolation to be complete, it is conceivable that their vitality might yet be preserved by newly-formed attachments to the surrounding parts. In support of this view I may cite a case lately published by Prof. Macewen, of Glasgow, who, having applied the trephine in a compound depressed fracture of the skull, took a piece of the inner table which had been completely detached, and laid it in the trephine aperture. The transplanted bone caused no irritation, and the wound healed without any signs of inflammation. Nevertheless, it can not be denied that necrosis may occur under the circumstances above mentioned, although it is comparatively rare, when the fracture is simple. It must also be granted that, when occurring, the suppurative action excited by the presence of the dead bone may extend to the membranes of the brain, causing fatal complications. But there are so many recorded examples of necrosis following gunshot injuries of the head, in which very large pieces of necrosed bone have been removed without the occurrence of cerebral symptoms, that preventive trephining can hardly be defended unless it can be shown to be an operation free from serious risk.

The performance of the operation in cases of simple depressed fracture without head symptoms, with the object of removing sharp fragments of the inner table, which it is assumed may have penetrated the membranes of the brain, or perhaps the brain itself, seems to me also quite unnecessary. It is true that in severe cases of simple fracture the internal table is often very extensively injured, and Bergmann has aptly remarked that a mere inspection of museum specimens might lead one to infer that simple fractures were graver injuries than those which are

compound. But clinical experience proves that these extensive osseous lesions are often recovered from without surgical interference.

On the whole, then, it would appear that the apprehensions felt by those who advocate preventive trephining in the circumstances mentioned are scarcely justified by observation. And if this fact is admitted, the propriety of performing the operation of trephining must be considered as at least very doubtful. If our means of diagnosis were more exact, and if we were able to predict what cases would turn out badly if left to nature, active interference would often be an obvious duty; but in the absence of such knowledge it seems unjustifiable to subject the patient to an operation which must convert a simple into a compound fracture, with its attendant dangers of suppuration in close proximity to vital parts. Although a firm believer in the excellence of antiseptic surgery, I regard the unbroken skin as a surer protection to the deeper parts than the best surgical dressing that has yet been invented; and when we remember that occasionally, even in careful hands, accidents occur in performing the operation, such as wounding the dura mater, or perhaps the brain, or one of the larger sinuses, we have still further reason to follow the conservative method of treatment which is sanctioned by the teaching and experience of the great majority of living surgeons.

The course which should be pursued in cases of simple fracture of the cranial vault, accompanied by head symptoms, is by no means easy to decide. The unknown quantity vaguely expressed by the term "head symptoms" often leaves us quite in the dark regarding the seat, nature, and extent of the traumatic lesions, so that we can not foretell whether the operation of trephining will prove beneficial, useless, or injurious. In endeavoring, however, to arrive at a definite conclusion on this point, there are certain well-known pathological and clinical facts which may sometimes guide us. Compression of the brain resulting alone from a fragment of depressed bone is rarely of long duration. Often, as has been remarked, considerable

depression exists without any interference with the cerebral functions; and even when the depressed bone causes symptoms of compression, these frequently disappear gradually as the cerebro-spinal fluid becomes displaced or absorbed, and the circulation in the brain is restored to its natural condition. Hence, even when we trephine successfully in cases of depression, we can not always be sure that the favorable result is due to our intervention. This point is happily stated by Dieffenbach, who records his experience in the following words: "A boy fell from the first story down upon a stone pavement, and received a fracture of the right parietal bone, of which a piece three inches in circumference was depressed several lines in depth. He lay comatose. I trephined him. He recovered, and I believed that I had saved his life by the operation. A year later he fell from the same place, and struck again upon the stone pavement, this time breaking the left parietal bone, just as he had before broken the right one. He recovered without trephining. Again I believed that I had saved his life, and I began to think that he had shown much endurance at the time when he survived the operation."

It has been clearly shown that in severe cases of simple depressed fracture, accompanied with marked and prolonged signs of compression of the brain, other lesions usually co-exist, such as contusion or laceration of the brain, or hemorrhagic extravasation, which may take place between the dura and the skull, in the arachnoid cavity, in the substance of the brain, or on its surface, from the vessels of the pia mater. If we except those rare instances in which the compression is due solely to an extravasation between the dura and the cranium, we shall have no reason to expect that benefit would result from the application of the trephine. So far as the brain substance is concerned, the damage which it has sustained is beyond the reach of mechanical aid. Its integrity, if restored, will be slowly regained, as in cases of ordinary apoplexy, by absorption of the extravasated blood. And the same process goes on in favorable cases when blood is effused upon the surface of the

brain. We have probably all seen examples of coma lasting for days or for weeks after head injuries, but which yet ended in recovery, due, as we may fairly presume, to the gradual disappearance, by absorption, of the extravasated blood. When we consider how large a quantity of blood is often poured out within the cranium in cases of fracture, we can not avoid the inference that the compression which it exerts is far greater than ever occurs from any depression of bone that we should think of treating by operation. In such cases trephining would be useless, either in consequence of the depth of the extravasation, or because, being widely diffused over the surface of the brain, the effused blood would not escape through the artificial opening made in the skull. Furthermore, the operation might in some cases prove injurious by provoking meningitis. In other words, the very facts which have been urged as affording an indication for the employment of the trephine in cases of simple fracture may, in my judgment, be used as an argument against the propriety of the operation. I refer to the gravity of the injury and the severity of the symptoms. Where the fracture is of great extent, and accompanied with severe contusion or laceration of the brain, or with copious intracranial hemorrhage, it is extremely doubtful whether the trephine can ever be employed with advantage; while the operation must, by increasing the mechanical injury and by favoring the occurrence of suppuration, add not a little to the already existing danger which threatens the patient's life. Perhaps I do not fully appreciate the comparative safety which attends the performance of the operation according to modern antiseptic methods, but I believe that in this class of cases future experience will prove active interference to be of doubtful utility.

There are two conditions, however, either one of which, when present, renders imperative an immediate resort to the trephine. One of these is the case in which the fracture is of limited extent, and in which there is reason to think, from its situation or from the occurrence of monoplegia, monospasm, or hemiplegia, that a splinter from the inner table may have pene-

trated the motor tract of the cerebral cortex. But, as we have seen, the fractures which are attended with such displacement of fragments of the inner table are usually of small extent, and are almost invariably compound. The other case is the one in which compression of the brain is caused by an accumulation of blood between the dura mater and the cranium. Such an accumulation may result from a wound of one of the larger venous sinuses, but in a large majority of instances it depends on a wound or a laceration of the middle meningeal artery. The accident is most frequently accompanied by a compound fracture; but it may be met with in cases of simple fracture, and occasionally when no fracture is present. When there exists a compound fracture, the blood usually escapes through the external wound, thus rendering the diagnosis easy; but when the fracture is simple, or when the artery alone is injured, the extravasated blood separates the dura mater from the cranium, and may be poured out in sufficient quantity to cause fatal compression of the brain. The amount of blood thus extravasated may be as much as half a pint. When the brain has not sustained severe injury, and the symptoms of concussion are but slight, the signs of the arterial lesion may be quite characteristic. After a blow has been received, usually in the temporo-parietal region, the patient, although perhaps slightly stunned, soon regains consciousness, and exhibits no marked signs of cerebral injury. But after the lapse of a few minutes, or possibly several hours, symptoms of compression appear, and soon become very marked, the patient often dying within twenty-four hours from the time of the accident. Hemiplegia sometimes occurs before insensibility is complete; and its detection is important, for the reason that a blow upon one side of the head has been known to cause a rupture of the artery on the opposite side. The accident affords a clear and positive indication for the application of the trephine; yet there are but few recorded cases of the operation. Adding one recent case to the list compiled by Bergmann, there are one hundred well authenticated examples of hemorrhage from the meningeal artery. Of these,

seventeen ended in recovery, and in twelve out of this number the blood escaped through an external wound. Of the remaining five, one recovered without operation, the diagnosis being confirmed by autopsy when the patient died three years later of pneumonia. The other four recovered after operation, the blood being evacuated through the trephine opening.

While believing that trephining is to be recommended in all cases of compound fracture in which the depression is marked, but of no great superficial extent, and in all cases of punctured fracture when there is reason to suspect that the internal table is extensively splintered or depressed, I am strongly opposed to active interference when the fracture is of great extent, and when the depression is not limited or abrupt. It is true that these cases are usually fatal; but I am sure that nothing can be gained by the extensive operative procedures that would be involved in any attempt to remedy the displacement. Aside from those cases in which the brain has suffered irreparable damage, I think that in future many successes will be obtained by careful antiseptic treatment of the wound, such as recommended by Lister in the management of compound fracture of the bones of the extremities. The most scrupulous cleansing of the wound, the arrest of hemorrhage, the removal of foreign bodies, loose fragments of bone, and of detached portions of brain matter, if present, followed by proper drainage and dressings, is, in my judgment, the only means which, with our present knowledge, promises any benefit in this nearly desperate class of injuries.

Hematoma in the Upper Portion of the Mediastinum producing Death by Suffocation.—Dr. J. T. Eskridge said (Pathological Society of Philadelphia) that he obtained the specimen from a colored man, porter, aged thirty-two years. He had led an irregular life, but it was not positive that he had ever contracted syphilis. During the past winter he suffered from a severe cold on the chest, and was told by his physician that his heart was inflamed. With the exception of slight cough, unat-

tended by any difficulty in breathing, he had considered himself in excellent health on June 10, 1883, when, after carrying a heavy trunk on his shoulder from the first to the fourth floor of a hotel at Cape May, he was seized immediately with great difficulty in breathing, and was compelled to seek the open window to prevent suffocation. During the next two days, while still remaining at the sea-shore, he suffered from several attacks of shortness of breath, each lasting from several minutes to an hour or more.

He was admitted to the hospital of the Jefferson Medical College on June 12th, about sixty hours after the occurrence of the accident. On admission his breathing was so labored that he was unable to speak. He was gasping for breath, and bathed in profuse cold perspiration. Respiration 36, with greatly prolonged expiration; pulse 100; temperature 99.7°. Inhalations of amyl nitrite and the hypodermic use of morphia and brandy seemed to give relief. The attack lasted about twenty-five minutes. He slept well during the night, and was tolerably comfortable until 5 P. M. the next day, when he had another paroxysm, which was promptly checked by amyl nitrite, morphia, and dry cups to the chest.

14th, A. M., Dr. Eskridge saw him for the first time. The patient was breathing quietly, and said that he felt comfortable. Pulse and temperature were nearly normal; urine contained neither albumen nor sugar. No cardiac murmur was detected. Lungs were hypo-resonant at their apices. Loud, moist, bronchial râles were present throughout both lungs. In view of the man's former freedom from attacks of dyspnea, he thought that he detected nothing capable of giving rise to so great interference with respiration. The next two days no dyspneic attacks occurred, and he seemed to be doing well.

17th. His breathing was distressing for several hours. Nothing seemed to afford much relief.

18th. Severe asthmatic breathing came on at 6 A. M., and lasted in its worst form about six hours. Chloral hydrate gave some relief, After that paroxysm his breathing did not again

become quiet. He died, exhausted, at 7 P.M. the next day. With the exception of occasional headache, he did not complain of pain at any time.

Sectio cadaveris made by Dr. Parrott, the medical resident.

Thorax. Pericardial sac was completely obliterated by old firm adhesions between the pericardium and heart. The heart was rather soft, and both ventricles were relaxed and contained considerable dark fluid blood. Valves nearly normal. Both pleuræ were adherent to the upper portion of the pericardium, and the left pleura was every where adherent to the lung. Both lungs were emphysematous at their apices, and considerable lobular emphysema existed. Bronchial tubes were congested, and contained considerable mucus.

A semi-solid or rather soft oblong body, about two inches long by one and a half wide, was found lying upon the lower anterior surface of the trachea, imbedded in connective tissue and firmly held by old adhesions. It occupied a position just above and behind the transverse portion of the arch of the thoracic aorta. Three of the rings of the trachea, in the position where greatest pressure was exerted by the semi-solid mass, presented a dark color, and one of the spaces between the discolored tracheal rings was nearly ulcerated through from the effects of pressure. On cutting into the tumor it was found to consist of blood more or less clotted. The caliber of the trachea was greatly lessened at the seat of hemorrhage. No ruptured blood-vessels were found. No disease was observed in any of the arteries. The abdominal organs were nearly healthy in appearance.

Commenting on the case, Dr. Eskridge said that numerous cases of rupture of the aorta, or of smaller blood-vessels, into the trachea, bronchi, esophagus, or mediastinum were on record; but in all of them, so far as his knowledge went, death resulted directly from loss of blood. The peculiarity of the case of which he had given a description was the formation of a hematoma in the mediastinum. In hemorrhages into that space the blood usually gravitated to the lower portion of the

chest, and the patient soon died from loss of blood. In the case he presented, however, on account of extensive, old, and firm adhesions of pleuræ, pericardium, connective tissue, and every thing else in the upper portion of the mediastinum, a hemorrhage in that situation must necessarily have been circumscribed, and could have taken place only gradually by dissecting up the adhesions. He thought that the condition of the parts that prevented an extensive hemorrhage predisposed the smaller blood-vessels, especially the veins, of that locality to rupture. In view of the extensive alterations, by means of general adhesions, that had taken place at the seat of hemorrhage, it was not surprising that rupture of a blood-vessel should have occurred when the parts in the anterior region of the neck and upper portion of the chest were suddenly put upon the stretch, as occurred in the act of raising a heavy trunk from the floor and placing it upon the shoulder. From the specimen as he obtained it he was unable to say whether the hemorrhage had occurred from a rupture of the aorta or one of the smaller vessels, or from the bursting of a very small vessel that had become aneurismal. The tearing across of small veins would have been sufficient to give rise to the extravasated blood. (Medical Times.)

Bubo.—Some authorities have supposed that the development of a bubo is influenced by the dimensions of the primary sore, but this is certainly not the case. The smallest chancroids may be succeeded by the most formidable buboes; and the inguinal affection generally sets in within ten or fifteen days from the appearance of the chancroid. But there are frequent exceptions to this rule, and a bubo is sometimes formed as late as a month or even two months after the chancre has completely healed.

The diagnosis of bubo is in many cases unattended with difficulty. While the abscess is still closed its investing integument will be thin and of a livid hue—in short, it will exhibit signs of mortification from which the nature of its contents may be easly inferred. If it be laid open by incision, the edges of

the wound will have an ulcerated appearance, and the whole anterior wall will be no thicker than a sheet of paper. If it breaks spontaneously, the abscess wall will present three or four sieve-like openings which will speedily enlarge and merge into one another, so that the bubo at last will take on all the characters of a simple chancre. In some cases this ulcer heals spontaneously, the pus discharges outwardly, the cavity closes, and the affection terminates like a non-specific bubo.

As to treatment: If pus has formed it should be evacuated at once by free incision, after which, if the wound be properly attended to, healing takes place in favorable cases without further trouble. But more frequently the artificial opening instead of closing becomes larger, and the neighboring tissues are affected by the burrowing of pus. In this case the abscess should be freely laid open by scissors, thus obtaining an exposed surface to which dressings can be conveniently and effectually applied. The best local application is that of iodoform. Its only disadvantage is the intolerable oder it diffuses, which is sufficient to debar it from use in private practice, except as a final resort. In its stead phenic acid may be employed, and the affected surface painted over with iodine every morning,

While simple bubo may be completely cured in fifteen days, the variety we are considering requires at least a month of treatment. Phagedena is its most formidable complication. This appears under three forms—pultaceous, inflammatory, and gangrenous. Each is marked by special features; but the results most to be feared in this connection are the production of hemorrhage and the breaking down of the constitutional forces. Thus, in one of our hospital patients this very year, a phagedenic ulcer which formed on one side of the sacrum laid bare the bone and brought on spinal meningitis, which soon terminated fatally.

Any debilitating influence may give rise to phagedena, but thus far we must confess that its exact mode of origin is inscrutable.

When thus complicated, the duration of a syphilitic bubo

will be from three or four months to a year. A single case has been reported in which it lasted fourteen years. (Journal Cutaneous and Venereal Diseases.)

Boracic Acid in Cervical Endometritis.—Mrs. H., two years ago, after the birth of her fourth child, developed an acute endometritis. As soon as the nature of the trouble was determined, I commenced treating her at once with a solution of acid carbolic and liq. ferri subsulph., Monsell's solution. The os was patulous, readily admitting of medication. This treatment gradually improved her condition, and at the expiration of two months I discharged her as cured. She remained in perfect health up to within about three months of present writing. About this time she called at my office, presenting many of the symptoms of her old trouble.

Examination with the aid of a speculum revealed all the old symptoms greatly exaggerated. I at once resorted to my former method of treatment, but each time with negative results. I went through the whole list of remedies used in such cases without any apparent change; indeed, it seemed each application only intensified matters. It finally occurred to me that perhaps milder means would prove more potent, and therefore boracic acid was selected as being the best thing to fill all the indications. The first application was made by moistening a hair pencil and covering it with the powder. This was then carried as high up as possible, applying the same to the convexity of the neck, there being a good deal of excoriation at this point.

At my next visit, four days subsequently, I found such a decided change for the better that I determined to continue in the treatment. This time, however, I pursued a different course. Instead of using a small amount of the powder, I packed the cervix as firmly as admissible with the acid. Withdrawing the speculum, I directed the patient to elevate the hips and remain in that position two or three hours, believing by this means some of the acid as it dissolved would naturally find and medicate the parts above the cervix.

One week from this date I made the third examination, and to my surprise found no trace of inflammation. The patient informed me she could hardly realize the change of so short a period.

I have often observed in acute inflammatory condition of the mucous surfaces, notably pharyngitis, that astringents and caustics oftentimes aggravate the trouble, but, on the contrary, a mild application or gargle, either of hot water or hot water and milk, equal parts, gives almost instantaneous relief. This same rule can, I think, with equal success be applied to uterine therapeutics. (W. H. DeWitt, M. D., in Lancet and Clinic.)

PREVENTION OF SEA-SICKNESS.—In these days of frequent ocean traveling the prevention of sea-sickness is a problem the successful solution of which must be regarded as of no mean importance. Dr. Henry Bennet, in the British Medical Journal of August 11th, highly recommends the following plan, which he has found efficacious in his own person and in many friends and patients:

1. A good, easily-digested meal should be taken four hours before embarking.

2. A cup of strong black coffee should be taken just long enough before embarking to secure its absorption; one hour if it is taken with sugar only, two hours and a half if taken with milk.

3. The coffee must be good and strong, unmixed with chicory, or it will do no good.

4. There should be nothing in the stomach—nothing for the stomach to do.

5. The dose necessary is about an ounce and a half of pure coffee powder made into an infusion with four ounces of boiling water. Infuse for ten minutes.

6. If sickness ensue and food be thrown up, the conditions to secure immunity have not been complied with, and the non-success is not a real feature of the remedy.

7. The stomach being full on going on board does not prevent sea-sickness, but rather promotes and causes it.

8. On short journeys the above plan hardly ever fails. On longer journeys coffee should be taken in the same way, after which the patient ought to lie down in his berth.

9. The influence of a strong dose of coffee on the nervous system lasts for eight or ten hours. During this time the body may become accustomed to the motion of the ship.

10. It is better to take no food, either liquid or solid, until the feeling of hunger or thirst shows itself. For assuaging the thirst, soda or apollinaris water, with or without brandy or champagne, may be sipped. For allaying hunger, *café au lait*, with or without a little bread, may be taken, and, that agreeing, curry, as advised by Dr. Kendall, may be tried.

11. In the continued sickness of long voyages great and often permanent relief may be obtained by injecting per rectum, at night, fifteen or twenty drops of laudanum in an ounce and a half of warm water. If not retained, this may be repeated in an hour and a half.

Carcinoma of Both Ovaries—Double Ovariotomy—Resection of Intestine and Bladder—Recovery.—Dr. Moritz Schustler (*Wein. Med. Woch.*) reports the following case from Billroth's clinic: A married woman who had had six children and one miscarriage had suffered from the following symptoms for four years, Intense pain in the hypogastrium at intervals, gradually growing worse, accompanied by fever and tenderness; later, shortness of breath and palpitation of the heart, frequent micturition and constipation. A tumor was first noticed five months before the operation, in the left side, the size of an apple, which grew rapidly, so that at the time of the operation it reached almost to the false ribs. Loosely connected with it was a second tumor to the right, and not so large as the first. There was only slight mobility; the surfaces were nodulated; there was no fluctuation. The uterus seemed pushed to the left side and behind. The operation was done without spray, but

under strict antiseptic precautions. On reaching the tumor, and attempting to lift it out of the abdomen, it was found to be closely adherent to the upper part of the posterior wall of the bladder. As the tumor seemed to be malignant, Prof. Billroth decided to excise the adherent portion of the bladder, and a piece three centimeters long and two centimeters broad was removed. The wound was closed by six fine silk sutures. It was then found that the posterior surface of the tumor was so firmly adherent to a part of the small intestine that it could not be dissected off. A piece twelve centimeters long was therefore cut off, and the two ends of the severed intestine joined by fourteen sutures, five internal at the insertion of the mesentery, and nine for the rest of the circumference. The rest of the operation presented no especial difficulties. The convalescence was undisturbed by any complication. Flatus passed on the second day, and on the sixteenth there was an operation of the bowels following an enema. The catheter was used for the first few days only. On the twenty-fourth day the patient left the clinic well. According to later accounts, the woman is in perfect health, and fifteen months after the operation there has been no sign of a recurrence. This is said to be the second case of resection of the intestine on record, the first having been performed by Madelung. (Boston Medical and Surgical Journal.)

Hot-Water Enemata in Delivery.—Dr. D. S. Beckingsale writes, in British Medical Journal, that "The value of hot-water enemata as a means of hastening delivery, apart from its use in the removal of fecal accumulation, in such cases of tedious labor in which either ergot or the forceps are admissible, has been hitherto unaccountably ignored in practice, as far as my experience extends. I formerly had warm-water enemata given with the usual object of removing fecal obstruction from the rectum. In most cases an increased rate of dilatation of the os followed. Latterly I have had enemata of hot (not merely warm) water administered, whether there were any appreciable collection of feces or not, and always with the result of an acceler-

ated rate in the progress of labor. The fact of the os dilating under the influence of the enema, whether there was an appreciable quantity of feces or not in the rectum, proves that their presence does not prevent dilatation by causing spasm; at least, not in the majority of cases. It follows that the hot enema must act as a direct and powerful stimulant to the uterine muscle, and I feel convinced I may add, as a result of close observation, also to the voluntary muscles engaged in the act of parturition. Judging from the sense of relief which follows its administration, it has at the same time a relaxing and soothing effect on these same parts — analogous, in short, to the effect of hot water applied in the familiar form of a fomentation to an inflamed and painful swelling.

"I believe I am justified in adding that there is less atony of the uterus after delivery, when a hot enema has been given, and consequently less tendency to post-partum hemorrhage. On this account it has not the after-relapsing effect of chloroform on the uterus it otherwise commonly has.

"I submit that it would be as well to give so simple a means of treatment as hot-water enemata a trial in cases in which either ergot or the forceps would be used, as it possesses obvious advantages over both."

On the Subcutaneous Injection of Ammonio-mercuric Peptones in the Treatment of Syphilis.—(1) They produce in no case any very severe pain—not even enough to cause that faintness which is so commonly experienced under the employment of any other preparation of mercury, especially the biniodide. (2) They give rise to no inflammatory swelling, abscesses, or sloughing sores, even when performed on diabetic subjects. This was shown in the case of one of my patients, whose urine contained sixty-nine grams of sugar to the liter (he passed about five liters of urine, containing three hundred and forty-five grams of glucose, every twenty-four hours), and yet, despite this enormous discharge of sugar, the hypodermic injection had not the slightest injurious effect upon his skin. This fact is sufficient

to prove the harmlessness of the neutral solution of these peptones. (3) Salivation or mercurial stomatitis was very seldom observed, except when due to previously-existing irritation of the buccal mucous membrane, caused by tobacco, alcohol, morbid dentition, etc. (4) The gastro-intestinal disorders which so often accompany the administration of mercury by the mouth or by inhalation were never encountered, and consequently this method of treatment did not conflict with the employment of remedies suited to any constitutional or diathetic malady which might have preceded the syphilitic infection. (5) Hypodermic injections exert an action upon syphilis in all its forms and manifestations, whether normal or abnormal, at once more powerful, more beneficent, and more prompt than can be obtained by administering mercury or its compounds in any other way. Very many cases of abnormal, of dangerous, and of so-called malignant syphilis might easily be adduced from the records of both my hospital and my private practice, which would contribute to place the truth of this assertion in the most convincing light. (Journal Cutaneous and Venereal Diseases.)

To what Extent Does the Influence of Position during the Act of Micturition Affect the Formation of Urinary Calculus?—To many medical officers serving in India, who had the opportunity of seeing the practice n the civil hospitals and dispensaries up-country, it must have been a matter of surprise to note the great number of cases of urinary calculus that apply for assistance, to say nothing of the much greater number whose caste prejudice and fear of operative interference prevent our seeing; and although by no means an original idea, it has struck me after operating, and seeing great numbers of cases operated on, that the position of the native's body during micturition has more to answer for in the formation of stone than we are led to suppose. The almost universal position of the native of India during the act of micturition is that of "squatting" on his hams, and from that position he never rises until micturition is finished.

Now, when we come to consider the diet, principally rice, highly seasoned food, such as hot curries and "dall" (a highly nitrogenous substance, eaten by the native with avidity), and the quality of the water with which this is washed down, it must be a matter of very little surprise to us to find how favorable a subject he is for the formation of calculus; but when we find, added to this, a distended bladder, and a position assumed in micturition which, to a certain extent, paralyzes the action of the muscular organ he wishes to empty, I think we may assert that he does his best to bring about the disease which we are called on to combat. It is plain that, in the majority of cases, he does not empty his bladder, and that a certain amount of urine is left to set up by its irritating action some vesical inflammation, followed by the deposit of sabulous matters and the formation of calculus, which generally takes the form of oxalate of lime or, more rarely, uric acid or urate of ammonia.

I have searched in vain to see if this subject is mentioned in any text-book as a source of stone; and the question arises, if our surmises are correct regarding the influence of position, what measures must be taken to induce our Aryan brother to see the error of his ways, and to assume a position more upright and less hurtful?

Perhaps, as the march of civilization proceeds in India, he may become morally and physically more upright; but, till that happy day arrives, I am afraid we shall not be able to hang up the lithotomy-knife and allow the forceps to rust on the wall. (British Medical Journal.)

INFANT FOODS.—In a recent lecture delivered by Prof. Albert Leeds, Ph. D., of Hoboken, on this very interesting subject, he summarized the several points of his discourse as follows: (1) Cow's is in no sense a substitute for woman's milk. (2) Attenuation with water alone is inadequate, and chemical metamorphosis, or, mechanically, the addition of some inert attenuant is required in order to permit of the ready digestibility of cow's milk by infants. (3) The utility of manufactured infant's food

is to act as such attenuants, and as such they take the place of the simple barley and oatmeal water, the sugar, cream, baked cracker, arrowroot, etc., used in former times. (4) The results of both chemical and physiological analysis are opposed to any but a sparing use of preparations containing large percentages of starch. (5) It is eminently probable that, besides acting as attenuants, the matters extracted in the preparation of barley and oatmeal water, and, still more, the soluble albuminoid extractives obtained at ordinary temperatures (whereby coagulation is prevented) by Liebig's process, have a great independent value of their own. For this reason, instead of employing starch, gum, gelatine, sugar, etc., the use of a natural cereal extractive, containing saccharine and gummy matters and soluble albuminoids as well, such as our great and inspired teacher Liebig himself advocated, is in accordance with the developments of science since his time. (6) The use of a food made up of equal parts of milk, cream, lime-water, and weak arrowroot water, as practiced for years by the late Dr. J. Forsyth Meigs, and recently advocated by his son, Dr. Arthur V. Meigs, is sustained by theory, analysis, and practice. It provides for the increase of fat to an amount comparable to that contained in human milk. It adds alkali to permanent reaction; and, to convert caseine into soluble albuminates, it adds a little bland attenuant. And if, in addition, the amount of milk-sugar were raised, and instead of arrowroot water, barley or oatmeal water were substituted, as the case demanded, it would approach, it appears to me, still more nearly to the conditions required. (7) The perfect solution of the present problem is to be found in the modification of cow's milk by chemical processes so as to make it physiologically equivalent to human milk. The nature of these processes and the results to be obtained are at present so nearly wrought out that there is good ground for believing that such a solution of this problem is not far distant in the future.

A New Method of Applying Pressure to Enlarged Testicles.—In the Lancet for July 7, 1883, Dr. Corbett describes a

simple method of applying pressure to enlarged testicles, which is calculated to do away with many of the objections against the ordinary plaster strapping. He prefaces the explanation of his plan by saying that he derived the idea from a homely source—nothing more or less than seeing the means employed for encasing a football. Barring that, instead of having the encasing material made of leather, he had it made of india-rubber, such as one sees in the construction of the balls in spray producers, etc. The cases he recommends should be made of different sizes and thicknesses, and oval in shape. The means of tightening the cases and applying the pressure would be identically the same as in the football cover; that is, by lacing. There should be an opening at the neck of the case to allow the passage of the cord. This opening would be surrounded by a ring (interrupted) of leaden wire, to insure its patency and to prevent pressure on the structures of the cord. The leaden wire ring being interrupted, its softness would offer no obstacle to its easy adjustment round the neck of the enlarged gland. With a supply of such cases the treatment of an enlarged testicle would offer but little difficulty. It would simply mean the selection of a rubber case of the right size and thickness, and capable, when laced up, of exercising a steady, equable pressure on the enlarged organs, and applying the case to the testicle and lacing it up. If considered necessary, the testicle could first be enveloped in a thin layer of cotton wool. This would prevent any possibility of the skin being nipped or chafed by the lacing. As the gland reduces in size, a smaller case would be applied, and thus a steady pressure kept up until a cure was effected.

The above plan has the advantages of simplicity, neatness, and quickness in its application to recommend it. It involves no elaborate apparatus, and does away with many, if not all, of the objections connected with the operation of strapping with plaster.

Changes in the Renal Ganglia in Bright's Disease.—Dr. R. Saundby fully confirms the results obtained by Da Costa and

Longstreth in relation to the co-existence of changes in the semilunar ganglia with inflammatory lesions of the kidneys. These changes are: (1) In acute Bright's disease, a simple increase in the round-cell elements of the stroma in the ganglia. (2) In the "large white kidney," a marked increase in the stroma as well as in the cell elements. (3) In the mixed forms of renal inflammation, in addition to the changes above indicated, the ganglionic cells show signs of pigmentary degeneration, and the vessels may be dilated and hypertrophied. (4) In the atrophic kidney the stroma of the ganglia is greatly increased in amount, the cell elements are diminished, the ganglionic cells are scanty, shrunken, and in a stage of pigmentary degeneration, and the vessels are invariably dilated and hypertrophied. The number of cases examined by Saundby and the authors referred to was twenty-four, and in every one changes of the character just described were found in the semilunar ganglia. The constancy of this association of lesions seems to suggest a relation existing between the changes in the ganglia and those in the kidney; and Da Costa and Longstreth suppose that the latter may be the direct result of the former. Saundby, however, combats this idea and holds that the ganglionic lesions are the results of irritative action set up by the renal disease, it being well known that, in a great number of pathological conditions in which there is structural alteration of any of the viscera, irritative changes do occur in the related sympathetic ganglia. (British Medical Journal.)

In cases of acute conjunctivitis, with slight secretions, the following collyrium (by Dr. L. Webster Fox) has been efficacious:

Boroglyceride, ...	℥ j;
Camphor or rose water, ...	āā ℥ j.
Distilled water, ...	

This can be applied either by a bit of cotton-wool or by the spray. After several applications the congestion disappears and the mucous surface is restored to its normal condition. In gran-

ular lids, with much thickening of the conjunctiva complicated with pannus of the cornea, a fifty-per-cent solution was used. The slight purulent secretions were checked immediately; the thickened and congested condition of the conjunctiva was reduced, the vessels on the cornea disappeared rapidly, leaving it clear and transparent; but no change is observable in the hypertrophied condition of the papillæ, excepting to make them more pronounced in their outline. At this stage of the treatment, xerosis conjunctivæ is not infrequently produced. The conjunctivæ are free from moisture, and the patient has sensations of heat and dryness in the eyes which are distressing. The treatment should be discontinued, and a solution of nitrate of silver, five or ten grains to the ounce, substituted; one application daily should be made to the parts until the normal secretions are restored; then the sulphate of copper, in substance, is to be applied once daily to the now reduced trachoma. Under this treatment the granulations disappear very rapidly, the lids become smooth, and where there is pannus the cornea regains and retains its transparency. (College and Clinical Record.)

Gall-stones in an Infant.—The Boston Medical and Surgical Journal, August 2, 1883, says that Dr. A. D. Walker reports the case of an infant three months old, and healthy, who, when it was one month old, had an attack of icterus, and who, after some hours of restlessness and suffering, passed by the rectum (a purgative having been given) three gall-stones, the largest of which weighed two grams.

Salicylic Paste.—Oscar Lassar (*Monatsch. f. Prakt. Dermat.*) recommends for cases of eczema which show an intolerance of ointments a paste composed of equal parts of oxide of zinc and starch powder with vaselin. To this paste are added various medicaments, but, as especially useful, salicylic acid is recommended. The advantages of the preparation over the ordinary salves are stated as follows: It does not liquefy at the ordinary temperature of the body, but dries on the skin, to

which it adheres so closely, wherever applied, as to render a retaining bandage unnecessary. On hairy portions of the body it is objectionable, because of its sticking the hairs together. The zinc-starch paste has no irritating properties whatever, and is well borne when simple vaselin is not. The greatest advantage, however, is said to be due to its porosity, by means of which any secretions which arise from the surface to which it is applied are absorbed instead of collecting beneath it, as is the case with ordinary ointments.

It is claimed that the addition to the paste of salicylic acid in the proportion of two per cent adds very decidedly to its curative effect in eczema.

The following is the formula:

℞ Acid. salicyl, ... 2.0 (grs. x);
Vaselin, ... 50.0 (ʒ iv);
Zinci oxid., ... } ãã 25.0 (ʒ ij).
Amyli, ... }
M. Leniter terend., fiat pasta.

Castor Oil and Glycerine as a Purgative.—Dr. Soper says: "After many months' experience, I now feel justified in bringing to your notice the great advantages of a combination of the above two drugs in equal proportions to act as a purgative. Glycerine has great therapeutic value, especially in its solvent properties, and this combination renders it especially valuable. In regard to castor oil, I think a great mistake has been made in the largeness of dose administered, and in this mixture only half a teaspoonful is required combined with an equal bulk of glycerine. In all cases of chronic constipation, hemorrhoids, and anemia, it has proved most useful. A scybalous motion is apparently emulsified, and is passed with the greatest ease. I have also given half-teaspoonful doses in the early stages of bronchitis, which seem to promote exudation from the tubes, and is certainly expectorant. My great difficulty hitherto has been the obstinacy with which the mixture becomes a mixture; as it can only be made by placing the bottle in hot water and violently agitating." (Lancet.)

Removal of Carious Portions of the Vertebral Bodies. Dr. Boeckel relates the history of a case in which he removed the carious portion of the bodies of two dorsal vertebræ by means of the sharp spoon, with gratifying results. From his experience in this case and in operations upon the cadaver, the writer concludes that it is not so difficult as is usually supposed to reach the anterior portion of the spinal column. The resection of an inch to an inch and a half of one rib affords room enough for the finger to reach the bodies of the diseased vertebræ. The danger of wounding any of the great vessels lying in front of the spinal column is not so great as it seems, as the pus has already formed a sinus which serves as a guide to the diseased bone. The bodies of the lumbar vertebræ may be reached by an incision made at the outer border of the sacro-lumbalis muscle, as for nephrotomy. The same operation is indicated in gun-shot wounds of the vertebral bodies. The difficulty in such cases lies less in the operation itself than in the uncertainty of the diagnosis respecting the location and extent of the injury to the bone. (*Schmidt's Jahrbücher.*)

Cannabis Indica a Valuable Remedy in Menorrhagia.—My experience of Indian hemp confirms Mr. Oliver's in some particulars, especially its physiological action. In no case has it produced pleasurable feelings, generally most alarming symptoms, such as complete paralysis, horrible hallucinations, double consciousness, etc. A young practitioner should be most careful in prescribing, and warn patients of its action, or he may lose their confidence. Indian hemp has been vaunted as an anodyne and hypnotic having the good qualities of opium without its evils. Also in dysmenorrhea. In this complaint and insomnia it has not proved of much benefit. The drug has almost invariably produced some marked physiological effect even in small doses. Text-books give the dose as ten minims and upward, but five minims is the largest dose that should be given at first. If bought from a good house, the drug is not inert or unreliable. A drug having such marked physiolog-

ical action ought to have a specific use as a therapeutic agent. Indian hemp has such specific use in menorrhagia. There is no medicine which has given such good results. For this reason it ought to take the first place as a remedy in menorrhagia; then bromide of potassium and other drugs. The *modus operandi* I can not explain, unless it be that it diverts a larger proportion of blood to the brain, and lessens the muscular force of the heart. A few doses are sufficient. The following is the prescription:

℞ Tincturæ cannabis indicæ, ... ♏ xxx;
Pulveris tragac. co., ... ʒj;
Spiritus chlorof., ... ʒj;
Aquam ad., ... ʒij.
One ounce every three hours.

Four years ago I was called to see Mrs. W., aged forty, multipara. She had suffered from menorrhagia for several months. Her medical attendant had tried the ordinary remedies without success. Indian hemp was given as above. Its action was speedy and certain. Only one bottle was taken. She was afterward treated for anemia, due to loss of blood. Twelve months after this my patient sent for a bottle of the "green medicine." I learned afterward that she had sent this medicine to a lady friend who had been unsuccessfully treated by another medical man for several months for the same complaint. It proved equally successful. The failures are so few that I venture to call it a specific in menorrhagia. The drug deserves a trial. It may occasionally fail. This, however, is not to be wondered at in a complaint due to so many different causes, and associated with anemia and other cases of plethora. (John Brown, L. R. C. P., in British Medical Journal.)

A Case of Tracheocele.—A merchant, twenty-nine years of age, of previous good health except for an attack of rheumatism, acquired a bronchitis with severe cough. After a severe attack of coughing he suddenly noticed a small tumor, the size of a hazelnut, just above the sternum. In three days this had increased to the size of a pigeon's egg, and incommoded res-

piration and deglutition. The tumor remained stationary for three weeks, when it suddenly opened and discharged blood and pus, and became much reduced in size. It grew again slowly for a time, but remained smaller and softer than before. It was larger during expiration, and diminished again in size during inspiration. Upon compression a fine crepitation could be felt, and the tumor disappeared. The treatment consisted in permanent compression of the hernia by a sort of truss, and resulted in a cure after the expiration of six weeks. The patient, however, became the victim of chronic asthma, from which relief could only be obtained by constantly increasing doses of morphine. From a study of this case and twelve others reported by different observers, Dr. Détis arrives at the following conclusions: (1) The causes of the affection are bodily exertions of any sort; (2) the principal symptoms are enlargement of the tumor during expiration, disappearance of the same under compression, and a muffled, squeaking voice; (3) the prognosis is favorable; (4) treatment is purely local, and consists in steadily maintained compression. (*Centralbl. für Chirurgie*, July 7, 1883.)

Salicylic Paste.—Lassar points out that to many patients even freshly prepared ointments are irritating, and he explains this by suggesting that the fatty acids become decomposed during the friction on the skin, and set up inflammation and swelling. Vaseline, used as a substitute for animal fats and oils, is not consistent enough. A suitable consistency is obtained by slowly rubbing up equal parts of oxide of zinc and starch with vaseline. A snow-white paste is thus produced, quite permanent and serviceable as a vehicle for other medicaments. This does not become liquid at ordinary temperatures, but dries pretty quickly, and can be maintained solid if the surface is warmed by dusting powder over it. By its means parts can be kept protected from the air without any other dressing, which are not so well adapted for ointments alone. Hairy parts alone should not have it applied to them, since it mats the hairs

together. The paste has no irritating effect. Its greatest advantage consists in its porosity, a feature in which ordinary salves are deficient. This is best observed after scarifications or superficial erasions and in moist eczema. The wounded surface should first be cleansed with carbolic or corrosive-sublimate solution, and then a two-per-cent salicyl-vaseline-zinc paste is applied with a brush which has been boiled and washed in a two-per-cent sublimate lotion. The paste so applied is allowed simply to dry, or covered with a thin layer of lint and turn of a bandage. In a few days the little wound has become smoothly healed without a scar. Salicylic acid is specially useful in eczema, and particularly when used as a two-per-cent vaseline salve or vaseline-zinc paste. In the common eczemas of the head in children, so numerous in dispensary practice, after two or three thorough cleansings, the daily application of the following salve nearly always suffices to obtain rapid and lasting results:

℞. Acid salicylic, ... gr. x;
Tinct. benz., ... ♏xx;
Vaselini, ... ℥j.
M. Ft. ung.

On other parts, where a soft salve which easily melts as this is not suitable, where a firm dressing or a drying effect is desired, the following paste should be rubbed on:

℞. Acid salicylic, ... gr. xix;
Vaselini, ... ℥j;
Zinci oxidi, ... } āā ℥ss.
Amyli, ... }
M. Leniter terend., fiat paste.

So long as the secretion is abundant, the dressing should be daily renewed. Sometimes, when it dries hard, it tickles the skin. It should then be rendered soft by subsequent inunction with vaseline. (*Monatshefte für Praktische Dermatologie.*)

Resorcine in the Treatment of Purulent Vaginitis.—The recent introduction of resorcine into therapeutics has developed some properties which render it especially applicable for external use. Chéron has employed it with success in the treat-

ment of vaginitis purulento, in both the acute and chronic stage. When there is much tenderness, so that a speculum can not be introduced, a soft catheter or tube is pushed in, and irrigations of from six to ten minutes' duration are practiced three times a day of the following:

℞ Resorcin. 10;
Aquæ fortis, ... 1000.
M.

As a result, the purulent discharge is rapidly reduced, and the soreness subsides, so that a modification of the treatment may be made. He then applies

℞ Resorcin., ... 6;
Amyli glycerit., ... 60.
M.

This is to be carried to the bottom of the vagina, with the aid of the speculum, upon a tampon of cotton-wool, which is allowed to remain in place for from twelve hours to fifteen hours. The dressing is repeated every second day. Cure is thus obtained more rapidly than with the ordinary emollients and astringents. (Medical Times.)

Traction Suture.—Oscar H. Allis, M. D., of Philadelphia, says, in Annals of Anatomy and Surgery: "It not infrequently happens when a large portion of integument has been cut away, as in removal of the female breast, that the healthy borders can not be fully approximated; and even an attempt to do so is accompanied with such a degree of tension that the sutures soon cut their way out. To distribute this tension, I have employed the following device: After drying the skin thoroughly, I apply strips of adhesive plaster from the margin of the wound in the direction I wish the sutures to hold. I then pass my needle deeply through plaster and skin. After the sutures are in position, and before tightening them, I request an assistant to approximate the margins of the wound by pressure from his hands, while I secure them by twisting the wire. Sutures employed in this manner have a firm hold upon the plaster, exert

their traction upon a large surface, are less irritating and harmful, and will continue an efficient action much longer than the ordinary integument sutures."

CHAMOMILE IN INFANTILE DIARRHEA.—Dr. Christopher Elliott, Physician to the British Hospital for Sick Children (*Practitioner*, December, 1882), indorses Ringer's claim for the great value of infusion of chamomile in infantile diarrhea connected with dentition, and in which the stools are many in number, green in color, or slimy and streaked with blood, and accompanied by pain and cramp. He gives one half to one dram of the infusion to a child under one year, and double the quantity to a child over that age, giving it three times a day or oftener, according to the severity of the attack. He explains the rationale of this treatment by the power which chamomile flowers possess of subduing reflex excitability, a power residing in the volatile oil contained in them. Grisan was unable to tetanize, by means of strychnia, a decapitated frog which had been fortified with a dose of chamomile oil, and *vice versa*, when reflex excitability had been artificially produced by means of strychnia, it could be calmed again by chamomile oil. (Medical and Surgical Reporter.)

REMOVAL OF A TIGHT RING FROM THE FINGER.—A novel method of effecting the removal of a ring which has become constricted around a swollen finger, or in any other similar situation, consists simply in enveloping the afflicted member, after the manner of a circular bandage, in a length of flat, India-rubber braid, such as ladies make use of to keep their hats on the top of their heads. This should be accurately applied—beginning, *not* close to the ring, but at the tip of the finger, and leaving no intervals between the successive turns, so as to exert its elastic force gradually and gently upon the tissues underneath. When the binding is completed, the hand should be held aloft in a vertical position, and in a few minutes the swelling will be perceptibly diminished. The braid is then taken off

and immediately reapplied in the same manner, when, after another five minutes, the finger, if again rapidly uncovered, will be small enough for the ring to be removed with ease. (*Gaz. des Hôp.*)

TINEA VERSICOLOR.—Tinea versicolor or *liver spots* is an exceedingly common affection, and one that causes much annoyance, since the patient frets at having this blemish on his skin. To cure it, Dr. George H. Rohé (Med. Record) recommends a lotion of hyposulphite of sodium, half a dram to the ounce of water. The patient is directed to take a bath once a day, using soap freely. After the bath, the affected spots are to be mopped with the parasitic lotion. In a week the discoloration has usually disappeared. The remedy should be continued a week or two longer to prevent relapse. Dr. Rohé says it is surprising to what an extent cases of tinea versicolor are treated for syphilis, hepatic derangement, or similar supposed affections of the internal organs. Patients are sometimes compelled to take mercury or potassium iodide for months, under the supposition that they suffered from syphilis, when the only trouble was that just described, which, when properly treated, yielded to local remedies alone in the brief space of two weeks.

PREVENTION OF INFANTILE DIARRHEA.—The *Bureau d'Hygiene* of the city of Rheims, France, in July, 1882, made a slight change in the form of death-report required in cases of infantile diarrhea, which has been productive of very instructive results. Children dying from this disease were divided into two classes, those nourished by mother's milk, and those brought up by hand. From July 1st to December 31st, thirty-one infants nourished at the breast and two hundred and seventy-two brought up *au biberon* died of infantile diarrhea. "This teaches us nothing new," says M. Langlet, in his annual report; "but it is one of those truths which can not be too often recalled."

To place the true value on M. Langlet's facts, we should know the relative proportions of the two classes of infants.

However, it can hardly be supposed that the bottle-fed children are to the nurslings as nine to one. (Medical Progress.)

Treatment of Granular Lids.—Dr. Arnoux claims to have met with great success in the treatment of granular lids by the following simple method: The lid is everted and wiped dry with a piece of blotting-paper. The granulations are then touched very lightly with a crystal of sulphate of copper, and immediately after a smooth cylinder of zinc is passed over them. Then the conjunctiva is carefully dried again, and, as far as possible, the impalpable black powder which remains after the operation is removed. The lid is then replaced, but not allowed to touch the ball of the eye for a minute or two. No subsequent cold applications are necessary, as there is little reaction if the operation be delicately performed. (*Gazetta Medica di Roma.*)

Bowditch's Formula for Irregular Heart.—In a discussion upon heart-disease before the Boston Society for Medical Improvement, Prof. Bowditch said that he had found the following formula of great service in relieving even the most serious cardiac affections. He had used it for the last twenty-five years.

℞ Pulv. digitalis, ... gr. x;
Pulv. colchici sem., ... gr. xx;
Sodii bicarbonatis, ... gr. xxx.
M. et div. in pil. No. xx.

These are to be taken three or four times daily at first; subsequently to be reduced until only one is taken at bed-time; the treatment to be continued for three to nine months. (Boston Medical and Surgical Journal.)

A Life Saving Infusion of Solution of Muriate of Soda in Acute Anemia.—A woman of thirty-four years relapsed into a condition of extreme anemia, in consequence of an enormous metrorrhagia after an abortion. A six-per-cent solution of chloride of soda was injected into the well exposed vena media basilica, which was carefully ligated at the periphery, by which

this almost moribund person was recalled to life. The venous infusion is preferred to the arterial, because it is easier executed, is absolutely harmless, and the vena mediana is easier found in an anemic person than an empty arteria radialis. (*Kurtner, Deutsche Med. Wochenschrift.*)

Pop-Corn for the Vomiting of Pregnancy.—Dr. H. v. Sweringen says "that this simple thing proved to be a God-send to me and my patient (more particularly the latter), having had one of the most intractable cases probably that ever occurred. I had exhausted the usual remedies employed in this distressing ailment, and was about to cauterize or do something to the os uteri, when my eyes accidentally fell upon the above-named remedy. To make a long story short, it acted *marvelously*, not only in the case referred to, but in three subsequent cases; in fact, in *every* case in which I have prescribed it."

Treatment of Gonorrheal Epididymitis.—Dr. Henderson reports the successful use of salicylate of sodium in three cases of this affection. In conclusion he says, "In further trials of this plan of treatment I would advise that only acute cases be selected, the evidence of that condition being a distinct rise of temperature as ascertained by the thermometer. The dose of the salt should not be less than twenty grains, and should be repeated hourly until at least three doses are taken. Afterward the same dose may be continued at longer intervals." (Lancet.)

The Radical Cure of Varicocele.—Dr. H. Lawrence Jenckes, of Glen Haven, Wis., presents in a concise way, in the July number of the American Journal of the Medical Sciences, the advantages of Williams's varix clasp in the treatment of varicose spermatic veins. He considers it superior to any other operative procedure for the radical cure of varicocele, and its simplicity, its freedom from danger and pain, and its success render it preferable.

Notes and Queries.

THE BURDEN OF OUR WORK.—Dr. Andrew Clark, one of the foremost of London physicians and most charming of medical writers, concludes a recent address on Clinical Investigation before the Clinical Society of London with the following lofty thoughts: "And now that our work awaits us, let us turn to it with justly attempered minds. For surely the burden of it is not mere occupation or interest, not mere success or failure, not mere profit or loss, not mere distinction for ourselves, nor even honor for the profession to which we belong. The true and serious burden of our work, as we smoothly say so often and entirely realize so seldom, is the prevention of disease, the relief of suffering, and the prolongation of life. And this is the burden of it—not in a loose and general sense, but in a solemn and particular sense; it is the burden of it, as it affects not merely many persons, but one person—one with whom we have to deal as if he were the sole object of interest and importance in the world, as if all the momentous possibilities of life and death, of the preservation or the destruction of the family life, and of all the good or evil which might issue out of recovery or of death were centered in him and depending upon us. And important as our work thus is to the life and wellfare of the individual and the family, it is not less important to the life and wellfare of the State and the world. For this work, as it is sound or unsound, successful or unsuccessful, affects for good or evil the numbers of the population and its physical constitution, the supply of labor and the sources of wealth, the education of the young and the direction of their energies, the moral conditions of society and the objects of political organizations, the development of

the race and the fulfillment of its destinies. Such reflections, common as they are, serve to remind us of what our familiarity with them makes us forget—the momentous and far-reaching influences of our work, and of the solemn responsibilities which lie upon us in undertaking and discharging it. Such reflections may further help us to cherish the spirit of self-sacrifice in active endeavor to overcome our ignorance of disease, till at last, with fullness, more or less, knowing and foreseeing, preventing or controlling, stilling pain or curing disease, repulsing death and renewing the conditions of commencing life, we may justify the boast of our father Hippocrates, and to men, in their extremities of need, give help like gods.

Cultivate Amiability of Disposition.—Professor Dickson, of the University of Edinburgh, in a recent address before the graduating class, quotes from an old writer, "the ever-memorable Mr. John Hales, of Eton." Speaking of this quality of amiability, which he calls "goodness," he says: "Goodness, of all the attributes by which a man may be styled, hath chief place and sovereignty. Goodness, I say—not that metaphysical conceit which we dispute of in our schools, ... but that which the common sort of men do usually understand when they call a man good; by which is meant nothing else but a soft and sweet and flexible disposition. For all other excellences and eminent qualities, which raise in the minds of men some opinion and conceit of us, may occasion, peradventure, some strong opinion of another kind; but impression of love and true respect, nothing can give but this. Greatness of place and authority may make us feared, depth of learning admired, abundance of wealth may make men outwardly obsequious unto us; but that which makes one man a god unto another, that which doth tie the souls of men unto us, that which, like the eye of the Bride in the book of Canticles, ravishes the heart of him that looks upon it, is goodness. Without this, mankind were but (as one speaks) 'stones heaped together without mortar, or pieces of boards without any cement to combine and tie them together.' For this

it hath singular in it, above all other properties of which our nature is capable, that it is the most available to human society, incorporating and, as it were, kneading us together by softness of disposition, by being compassionate, by gladly communicating to the necessity of others, by transfusing ourselves into others, and receiving from others into ourselves. All other qualities, how excellent soever they are, seem to be somewhat of a melancholic and solitary disposition. They shine then brightest when they are in some one alone, or attained unto by a few; once make them common, and they lose their luster. But goodness is more sociable, and rejoiceth in equalling others unto itself, and loses its nature when it ceases to be communicable."

THE ABSORPTION OF WATERY SOLUTIONS BY THE SKIN.—From an examination of this subject (*Ann. de Dermatol. et de Syph.*), Dr. Aubert concludes the following: (1) Substances dissolved in water may make their way through the epidermis without producing any visible external lesion. (2) Nevertheless, the essential condition of such penetration appears to be a break in the epidermis where it is prolonged into hair-sheaths, and along the included portions of the hairs themselves. (3) In fact, according to our observations, this penetration takes place exclusively in hairy parts. (4) It is promoted by whatever causes the hair to be pulled about, as, for instance, friction with the moist or dry hand, or unusual size, stiffness, and length of the hairs. (5) A delicate integument and thin cuticle afford unfavorable conditions, on account of the less vigorous growth of hair on parts thus endued. Total absence of hair is likewise a condition eminently unfavorable to absorption. (6) Hence we may infer the possibility of introducing soluble substances into the circulation by causing them to penetrate the epidermis in small quantities, either with or without the aid of baths. To effect this, friction with the palm of the hand would have to be applied forcibly over a large surface, and especially where the skin is hairy. The only possible unpleasant effects would be a moderate degree of inflammation, manifested in a little redness and smart-

ing about the roots of the hairs. (7) Simple immersion in a bath, however prolonged, could not be relied on to effect the entrance of even the smallest quantity of a solution through the skin.

DR. ABERNETHY AND THE LATE GENERAL DIX.—General Dix gives the account himself: "He received me with great civility, heard a few words of the story, and cut me short, as follows: 'Sir, you are pretty far gone, and the wonder is you are not gone entirely. If you had consulted common sense instead of the medical faculty you could probably have been well years ago. I can say nothing to you except this: You must take regular exercise, as much as you can bear without fatigue, as little medicine as possible, of the simplest kind, and this only when absolutely necessary, and a moderate quantity of plain food, of the quality which you find by experience best to agree with you. No man, not even a physician, can prescribe diet for another. "A stomach is a stomach," and it is impossible for any one to reason with safety from his own to that of any other person. There are a few general rules which any man of common sense may learn in a week, such as this: That rich food, high seasoning, etc., are injurious. I can say no more to you, sir; you must go and cure yourself.'"

RUSSIAN BABIES.—A correspondent of the New York World, speaking of Russian babies, describes as follows what one sees in the house of a Russian peasant: He looks curiously at one odd little bundle laid upon a shelf, another hung upon the wall on a peg, a third slung over one of the main beams of the roof and rocked by the mother, who had the cord looped over her foot. "Why, that is a child!" cries the traveler, with a feeling similar to that experienced on treading upon a toad which was supposed to be a stone. "Why, what else should it be?" answers the mother. Having learned so much in so short a time, the inquisitive traveler wishes to inform himself about the habits of the creature in the bundle; but his curiosity being somewhat

dampened by the extreme dirt of the little figure, he inquires of the parent when it was washed. "Washed?" shrieks the horrified mother, "washed! What, wash a child? You 'd kill it."

In a Chinese Doctor's Office.—A sick Chinaman walked into a Chinese store on Mott Street, pressed his hands against his stomach, ran them across his forehead, and, in the Celestial tongue, informed a wise-looking, fat Mongolian behind the counter that he was sick. The wise-looking man regarded the sick man through his big, round, horn-rimmed spectacles, inspected his tongue, placed his hands on his head, faced him to the four points of the compass, chanted mysteriously at him, and motioned him to a seat. Then he weighed out in delicate scales a dozen ingredients, wrapped the mass in six little cornucopias, tied them up with dried grass, pocketed a silver dollar, and dismissed the patient.

"What did you give that man?" a reporter asked.

"Man he heap sick," said the doctor, casting a lugubrious glance at his questioner, and jerking his words out at railroad speed. "Been heap dlunk 'cause he hear him mother-in-law die in China. Him heap glad. Give um mandlake, give um lu-barb, give um shlimp and little bit dlied snake; makee eat plenty glub. Me good doctor. You like some medicine?"

Dr. Engelmann.—The many friends of this distinguished gynecologist will be glad to learn that he will return to St. Louis, from his European trip, early in October. The Weekly Medical Review says of him: "He will gradually withdraw from general practice and confine himself strictly to the practice of gynecology and consulting obstetrics. He will remove his office to the elegant new building which he has just erected on Garrison Avenue, between Locust Street and Washington Avenue, and which, besides the operating-rooms, will contain some apartments for the accommodation of private patients, who will thus be under the doctor's constant supervision and watchful care during the entire time of treatment. This step is an

innovation in this city, but we have no doubt will meet with perfect success under the doctor's able management.

FASHIONS IN MEDICINE.—Dr. Spitzka, in his recent and very able work on Insanity, published by Birmingham & Co., New York, thus pricks a brace of gynecological fancies, to the great relief at least of some of us plain folk: "Those pretty cases in which a delusional insanity is instantly cured by restoring a retroflected or retroverted uterus to a normal position do not seem to occur nowadays, and the gynecological epoch of psychiatry seems to have passed by, taking its adieu with the sacrifice at Blackwell's Island Asylum of Mary Ann Mullen, a sufferer from unrecognized katatonia, on the altar of oöphorectomy (the ovaries being perfectly healthy). It would have been as reasonable to extirpate the bed-sore of a sufferer from paretic dementia, and to cut off the hematomatous ear of a terminal dement."

ICE-WATER AND TOMATOES IN PRAGUE.—One misses ice-water and our various cooling appliances very much. It is possible, with a good deal of trouble, to get a glass of water with a few pieces of dirty ice in it; but it always seems to excite so much surprise, alarm, and horror in the spectators that one has to seek out a secluded corner of the restaurant to drink it. I do not know which they regard as the worst, drinking ice-water or eating raw tomatoes. Now I am very fond of the latter, and always eat them when I can; but, from seeing a crowd around my part of the room every day, I begin to have some suspicion that the proprietor uses me as an advertisement, and that crowds come daily to see the great American tomato-eater. Ice-water seems especially to be regarded as a deadly poison, the cause of all the dyspepsia in America. (Dr. W. T. Councilman, in Medical News.)

RAPID UNION WITHOUT ANTISEPTICS.—A valued correspondent, at Salem, Ky., sends the following report of an amputation of the arm: Mr. C., of Pinkneyville, Ky., had his arm

caught, June 8th, in the belting of a mill-wheel, whereby his fore-arm was well nigh severed in its upper fourth, and the elbow and lower two thirds of the arm fractured and greatly lacerated. Drs. Graves and Shelby amputated at the junction of the middle and upper third of arm. But little blood was lost. Next day temperature rose for a little while to 102°, then quickly fell to 99°; pulse never exceeded 90. Patient was up and about on the 13th; flaps well united. Discharged cured on the 18th.

HYSTERIA—CAUTERIZATION OF THE CLITORIS.—The late Prof. Friedreich shortly before his death had prepared a paper, which has since been published, on this subject. In many cases of obstinate and severe hysterical affections he found that cauterization of the clitoris by nitrate of silver had the most beneficial effects. The cauterization must be severe, as slight superficial cauterization tends to aggravate the disease. The pain is at first severe, and during it the patient must remain in bed. Among the cases which he gives as cured with extreme rapidity by this method are: One of paraplegia, which had lasted for a year and a half; hysterical aphonia, lasting for two years; glossoplegia, lasting for four months; tonic spasm of the spinal accessory, lasting for seven months; and several cases of general severe hysterical convulsions. (Practitioner, March, p. 214.)

SYPHILIS IN THE LOWER ANIMALS.—Professor Neumann, of Vienna, has recently inoculated several monkeys with the secretion from indurated chancres, and also inserted portions of chancres beneath the skin of these animals. In every case the result has been negative; neither local nor constitutional symptoms were produced. Inoculations with syphilitic products were also made upon two horses, a pig and a martin, all of which were unsuccessful. These results of Neumann are of interest, as they are a contradiction to the researches of Klebs and Martineau, who in the past year or two announced that they had succeeded in communicating, by inoculation, syphilis to monkeys. (*Wiener Med. Wochenschrift.*)

CARLYLE AS HE WAS.—Carlyle owed every thing to his power of will, and to his unflinching adherence to principle. He was in no sense a lucky man, had no good fortune, was borne by no current, was favored and helped by no circumstance whatever. His life from the first was a steady pull against both wind and tide. His attitude was at once, like that of the old prophets, one of warning and rebuking. He was refused every public place he ever aspired to—every college and every editorial chair. Every man's hand was against him. He was hated by the Whigs and feared by the Tories. He was poor, proud, uncompromising, sarcastic; he was morose, dyspeptic, despondent, compassed about by dragons and all manner of evil menacing forms. In fact, the odds were fearfully against him; and yet he succeeded, and succeeded on his own terms. He fairly conquered the world—yes, and the flesh and the devil. (John Burroughs, in the Century.)

DANGER OF SPREADING DISEASE BY BOOKS.—The Lancet, quoting the alleged communication of yellow fever to an official in Paris through a dispatch from Brazil, says circulating libraries are common sources of peril. It would be difficult to imagine a more powerful medium for conveying disease than books. Organic particles carrying infection may lie for weeks, months, or years between the pages of a bound book, to be dislodged by some susceptible person handling it. Measles, scarlet fever, diphtheria, ordinary sore-throat, hooping cough, bronchitis (perhaps phthisis), and other chest affections and some skin diseases are most easily communicated by this means. Books can not be disinfected without injury, and hence should be destroyed after use by those suffering with the class of diseases mentioned. Dispatches and letters come under the same category.

LAST June the Regents of the University of Michigan requested the resignation of Dr. Franklin, professor of surgery in the Homeopathic Medical School, on account, it is said, of

the learned professor's connection with the firm of K. & K., of Detroit. A Dr. Walton, of Cincinnati, was elected to the vacancy, but refused to accept. Some one from Iowa was appointed to the chair of obstetrics, and he has also refused to accept. It would seem that the school is in bad odor among its brethren. Since the beginning of the school in 1876 not less than nine professors have resigned or refused positions. The total number of students in the department last year was fifty-eight.

THE FIRST RECORDED CASE OF EXTRA-UTERINE PREGNANCY. Albucasis, known among his intimate friends as Abûl-Câsem Chalaf Ebn-Abbas Alzaharavi, relates a case of extra-uterine pregnancy that came under his own observation. A woman being pregnant, the fetus died without delivery, and subsequently an abscess formed at the navel, and, coming to maturity, discharged, to his great surprise, not only pus, but the bones of a fetus. The mother lived many years after this event, a fistulous opening always remaining, from which a purulent discharge never ceased to flow. This is one of the earliest, if not the first case of the kind on record. (Dr. George Jackson Fisher, in Annals of Anatomy and Surgery.)

PROF. VIRCHOW'S RESIGNATION.—Prof. Ruldoph Virchow has resigned from the Association of German Physicians. This step was taken on account of the Association having publicly censured him for writing a note of thanks to an apothecary, Brandt, who sent him a box of pilulæ helveticæ (the formula of which is published) during a recent sickness. This note stated that the pills had been beneficial to Prof. Virchow, and Brandt without his knowledge published it as a testimonial. Prof. Virchow thinks that the censure was unmerited, and he denies that he gave a testimonial at any time for these or any other pills.

ACTUAL CAUTERY IN NEURALGIA.—Dr. A. C. Post (Medical Record) has recently reported a case of anterior crural neuralgia

of three years' standing in a fifty-year-old man, in which the actual cautery was applied along the course of the nerve, from the groin nearly to the knee, and also upon the leg at a few points where it was painful. Thorp's multiple cautery, having six points, was used, and it was applied at eighteen different places, making in all one hundred and eight minute punctures. Eight days after the operation relief was complete.

Carbon Bisulphide in Neuralgia.—Dr. A. M. Stout, Sussex, Wis. (Medical News), finds that the external application of carbon bisulphide is of great value in neuralgia. It, however, fails at times and stains the flesh more or less permanently. It at first causes a marked tingling and even severe pain when applied. It is very probable that it acts on the counter-irritant rather than the anesthetic principle. Cautiously used, it may have good effect in intractable neuralgia. It causes death by direct paralysis of the respiratory centers.

Rectal Examination for Vesical Calculus.—Prof. Volkmann states that after the patient is completely anesthetized one hand should be placed over the pubis, introducing the forefinger of the unoccupied hand into the rectum. In this manner it is easy to grasp a stone with the upper hand, especially in lean subjects. Sometimes it is possible to pass a ligature around the abdominal walls inclosing the stone. In vesical papillomata and myxomata with long pedicles this ligation might be of use. *(Archiv für Chirurgie.)*

Best Method of Testing Milk.—Dr. E. H. Bartley, chemist of the New York State Board of Health, recently delivered a lecture to the milk-dealers of Brooklyn, in which he said that milk which showed a specific gravity of 100 at a temperature of 60° by the common lactometer, and ten per cent of cream by the cream gauge, could be safely sold as pure milk.

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A Tracheotomy Tube for Gradual Withdrawal, and Report of a Case in which it was Used. By H. F. Hendrix, M. D., of St. Louis, Mo.

Report, for the years 1882–83, of H. A. Newton, Director to the Board of Managers of the Observatory in Yale College, presented by them to the President and Fellows, to which is appended the Report of the Astronomer in Charge of the Horological and Meteorological Bureau.

Report of the Board of Health of the State of Louisiana to the General Assembly, for the year 1882 and the first six months of 1883, embracing the Quarantine and Sanitary Operations of the Board of Health during a Period of Eighteen Months—January 1, 1882, to July 1, 1883.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the fiscal year 1882.

A Text-book of General Pathological Anatomy and Pathogenesis. By Ernst Ziegler, Professor of Pathological Anatomy in the University of Tübingen. Translated and edited for English Students by Donald Macalister, M. A., M. B., Member of the Royal College of Physicians, Fellow and Medical Lecturer of St. John's College, Cambridge. New York: Wm. Wood & Co. 1883.